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a description of the country which seems to be accurate (130, vol. 2, p. 238): "The aspect of Easter Island is not so barren and disgusting as navigators have told us. It is indeed almost destitute of wood, but the hills and valleys exhibit, in the eyes of seamen at least, a most agreeable verdure. The size and goodness of their potatoes, yams, sugar canes, etc. are proofs of great fertility and strong vegetation."

Contrary to their predecessors, the travelers of the nineteenth century who saw Easter Island were impressed by its apparent fertility and the richness of its plantations. Delano (5, p. 356) says of the west coast in the year 1804: "The greatest part of the island had the appearance of being capable of cultivations, and much of it was cultivated in beautiful plantations." Lisiansky (143, pp. 52-54) finds that "the eastern part of Easter Island is very pleasant. It is covered with verdure and many spots of it appeared to be planted with bananas. . . The neighborhood of the last two mentioned monuments (Vinapu) contained a greater number of habitations, and seemed better cultivated than any other spot we had yet seen. . . . The northern side appeared to be but thinly inhabited." Choris (48, p. 11) writes in 1822: "The aspect of the island was rather arid, but it appeared to us less miserable than to Cook or La Pérouse. All the higher slopes were divided in fields planted with various vegetables, whose varied nuances produced a very pleasant effect." Beechey (15, pp. 41-42) observes that the valleys were well cultivated and that the greatest attention appeared to be paid to tilling the soil. Palmer (169, p. 374) had the impression that everything was in ruins, though there were evidences of former cultivation.

In spite of Roussel's judgment (190, p. 495) to the contrary, Easter Island is fertile. Skottsberg (208, vol. 2, p. 488), our best authority on the subject, states that "where there is sufficient soil this is of good quality and quite fertile when properly cultivated, and in prehistoric and early historic times extensive plantations existed supporting a population of several thousands."

The present-day population of 456 souls is concentrated in the village of Hanga-roa. They cultivate the neighboring fields at the foot of Rano-kao and Rano-raroi. According to Mr. Edmunds, former manager of the island, two acres are necessary to support a whole family, and I am convinced that his statement is correct.

It is important to determine, as far as possible, the extent of cultivable land on Easter Island, for on this may be based an estimate of the number of inhabitants and in turn the probability that they could accomplish such a huge project as the carving of the famous statues. From a study of reports of ancient travelers and from my own observations of the island resources, I am convinced that three or four thousand natives could live on the island without fear of hunger except in time of war.

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enemies. Vives Solar (221, pp. 119-120) presents the following details which are not in my version: 173

> The ditch was under the care of a Long-ear called Toi who had his house at the end of the ditch on the south coast. Toi was married to Angu-neru, a Short-ear woman. Unaided, she discovered the murderous plan of the Long-ears and revealed it to her relatives. The Short-ears decided to strike first, and the signal for attack was to be given by the woman who would plait a basket in front of her house. This incident may belong to the original version since it figures in my text, although it is not connected with the plot.

Thomson's early account ends with the complete destruction of the Long-ears, but the episode of the two Long-ears who escape and take refuge in a cave near Anakena is told by Knoche (122) and by Routledge, whose brief details conform with my version. The slight discrepancies in Knoche's version are due to a free interpretation or to misunderstandings. According to him, the two Long-ears are not besieged in the cave but are concealed in it. They imitate the cries of the birds to keep the people away from their hiding place. "Oroine" is not the noise they make but the name of one of the men and Arone is one of his descendants.

Exceptional stress has been laid on this legend as one of the few traditions which seem to indicate the existence of a native population on Easter Island previous to the Polynesian migration. Whatever is the accepted tradition, the two peoples are represented as either having arrived together or as having lived side by side on the island. Routledge (194, p. 294) recognizes that "there is nothing in the story of the Long Ears and the Short Ears which indicates that the first were an earlier race." However, she adopts as a working hypothesis the following assumption (194, p. 298): The Long-ears were negroids who brought with them the custom of distending the ear. This first migratory wave was superseded by the ancestors of the present Polynesians who adopted this deformation after having destroyed their predecessors on the island. 173 174

There are many arguments in opposition to such a view, but here I shall discuss the problem only as it bears upon the myth. Great historical significance might be attributed to this legend if the Long-ears had not been the grandfathers or great-grandfathers of the modern inhabitants of the island. When Cook, La Pérouse, and the other explorers of the eighteenth century visited the island, most of the population, both male and female, had the lobes of their ears distended by heavy ornaments. This custom prevailed until about 1850. Since the legend is partially an etiological myth, it is likely that the motif of the Long-ears has been added recently when the distending of the ear lobes was going out of fashion. The primitive version referred perhaps to a people living in Poike that bullied the others and were finally burned in the big earth oven. [301]

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173 My conclusion is that this tale presents no definite evidence of the existence of two different races on the island. It has been inspired partially by the native desire to explain local geographical characteristics; very likely the fight between Long-ears and Short-ears is a fairly recent theme.

The War Between Tuu and Hotu-iti

173 References to intertribal wars are frequent in Easter Island folklore. They reflect real conflicts between tribes (*mata*) whose quarrels and feuds ended only after the advent of the missionaries.

The legend of Kainga and Poie may have a historical background. No doubt it preserves the memory of a general war between the eastern and western districts, which was fought with great tenacity and cruelty. The natives, of course, consider all episodes of this tradition as true, and Kariera, the informant of Routledge (194, p. 289), referred these events to the time of King Nga-ara's grandfather, the eighteenth century. However, they might have occurred in the settlement period if Tuu-ko-ihu, the expert who built Poie's canoe, is the same Tuu-ko-ihu who came with Hotu-matua. There is no clue to chronology in the legend.

I

173 539 Erua kope o Makita, o Rokeaua, he oho, he tu ki Hotu-iti, he tu ki te hare o Kainga i Hanga-nui. He uru ki roto ki te hare ararua kope, he hakaaroha ki a Kainga. He hakaaroha mai Kainga ki a Makita, ki a Rokeaua. He rangi Kainga: "Ka uru ki roto ki te hare." He uru Makita, Rokeaua, he noho. He momoe ararua nga io, he hauru. He ka Kainga i te umu, he tute mai i te moa, he tingai, he unu i te huhuru, he rara, he hakate i te kokoma, he tata i te kokoma, he hatui ki runga ki te maea. He oho te maanga hangai a Kainga, he mau i te kokoma ma Makita, ma Rokeaua. He tuu ki roto ki te hare tau maanga hangai era. He vaai i te kokoma hatui ki a Rokeaua. He ui mai Rokeaua: "He aha te mee na?" He hakahoki te maanga hangai a Kainga, "He kokoma moa." He ki mai Rokeaua, etahi tangata e hauru ro(a) ana ko Makita. He ki Rokeaua: "Kaihanga maua mee, tae kai kokoma moa maua, mee kai kokoma tangata no maua."

He to hakahou tau maanga hangai era a Kainga i tau hai kokoma moa era. He hoki, he ki ki a Kainga: "Pe nei e ki mai era mee tae kai kokoma moa raua. Mee kai kokoma tangata no te e ki mai era

Two young men, Makita and Rokeaua, went to Hotu-iti and arrived at the house of Kainga in Hanga-nui. Both young men entered the house and saluted Kainga. Kainga welcomed Makita and Rokeaua. Kainga said: "Come into the house." Makita and Rokeaua went in and stayed. The two young men lay down and slept. Kainga lighted the oven, he took a fowl, killed it, plucked the feathers, singed the down, cleaned the entrails, washed the entrails and roasted them upon the stones. An orphan adopted by Kainga took the entrails for Makita and Rokeaua. The adopted orphan entered the house. He gave the roasted entrails to Rokeaua. Rokeaua asked: "What is that?" The adopted orphan of Kainga answered: "The chicken's entrails." Rokeaua spoke while the other man, Makita, was sleeping. Rokeaua said: "We do not want it, we do not eat chicken entrails, we only eat human entrails."

The adopted orphan of Kainga returned with that chicken's entrails. Returned he said to Kainga, "This is what those said, they do not eat chicken entrails. The thing to eat is human entrails, is

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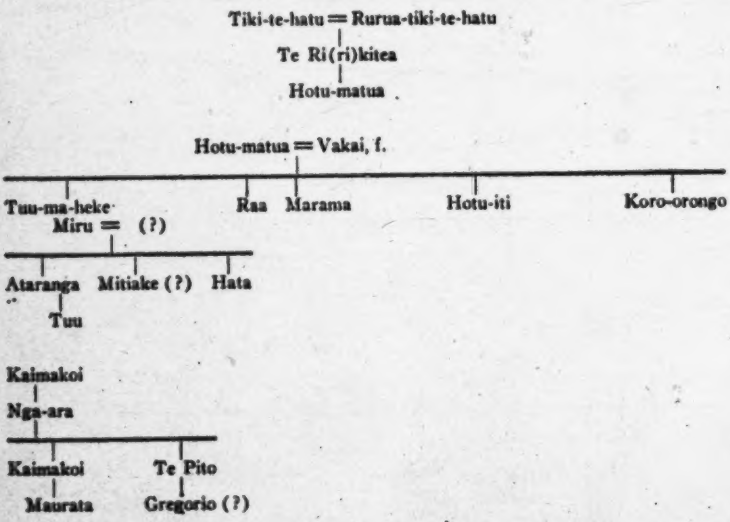
died about 1890 and was succeeded by Riroroko. In 1898 Riroroko went to Chile to complain about abuses perpetrated on the natives. He died a few days after landing in Valparaiso, probably from overindulgence in brandy. Since his time, there has been no other king on the island. Twenty years ago the Chilean officers of the *Baquedano* tried to proclaim my informant, Juan Tepano, king (219, p. 21). His new dignity was conferred upon him in a public ceremony, but no one took it very seriously, not even the new sovereign himself. There is still on the island a Riroroko, son of the late king, who could pretend to royal dignity, but he seems disinterested.

I have tried to reconstruct from the bits of evidence at hand a few genealogical sequences. I realize well upon what uncertain bases these conjectural genealogies rest, but they serve to show how arbitrarily the lists of kings have been formed.

Reconstructed Genealogies



We shall never know who were the old *ariki-mau* of the island or how many reigned before the collapse of native culture. The most trustworthy document, if the personality of the collector and the time he spent on Easter Island are considered, is Roussel's original list. It must have contained 22 names, which do not correspond to the same number of generations. At least five generations should be deleted from the list, leaving about 18. Routledge and I both record 30 kings. The length of Thomson's list (57 kings) is

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173 possible only because mythical names are mixed with historical ones and series
●174 of names seem to have been grouped quite arbitrarily. There is no hint in
643 any of the lists that the first kings were mythical characters. Any guess concerning the actual number of generations of kings would be quite unfounded. Perhaps it was between 20 and 30 for the reigns were short, since it was the custom for the kings to abdicate when their sons married.

POLYNESIAN TRADITIONS OF VOYAGES TO EASTER ISLAND

From Rapa

173 Forty years ago Couteaud, a French surgeon, visited Rapa several times. He claims to have heard there the following traditions (55, pp. 90, 91) which he probably adapted to Rapa from the legends of Hotu-matua and the Long-ears, learned from Alexander Salmon:

> Long ago, Hotu-matua, king of Rapa, was vanquished in war. He fled with his retainers in three canoes loaded with food. Westerly winds drove them to Rapa-nui. Only the king's canoe filled with fowls, bananas, and taro roots could cover the great distance separating the two islands. Rapa-nui was inhabited by warriors with long ears, who were killed by the invaders. Only the women and girls were spared. Since that time, twenty-two generations of kings have reigned on Rapa-nui. The first king was Hotu-matua, and the names of the entire dynasty are preserved in modern documents.
>
> After a long voyage a canoe from Rapa-nui arrived at Rapa. It contained only women, who landed half dead of hunger and thirst. No man lived then on the empty land of Rapa. The women did not know how to perpetuate their race. On the advice of one of their number, they dived into the sea, stretched their arms toward Rapa-nui, and called on their gods. Their prayers were granted. Some became pregnant and the race was established forever.

Couteaud interprets the last legend as expressing merely a close connection between the two islands. He adds (55, p. 91): " . . . the accounts of the old men assert that both countries recognized the authority of one king residing on Rapa, whose last descendant I met twenty-five years ago." The few papers published by Couteaud have no scientific value, and his traditions of former migrations to Easter Island are mentioned here only because they are substantiated by further evidence collected by Stokes (212). The best informants of Stokes, Teraau and Ngariki, gave him three accounts of voyages from Rapa to Easter Island, which indicate that in Rapa there definitely existed a tradition of a migration to the east. These are presented in the chronological order adopted by the natives:

> Tamatiki, son and grandson of Tiki, the first man in Rapa, voyaged to Easter Island and named it Rapa-taaga after his own land. He died in Easter Island, and news of his arrival, his descendants, and his death in that island reached Rapa many generations later through Te Kotokoto.
>
> In the second voyage, Temarango, also known as Rango, left Rapa with three canoes, each containing forty men and no women. One canoe stopped at Morotiti, about fifty miles to the east. Another canoe was never heard of again. The third canoe, under Temarango, reached its objective.
>
> Te Kotokoto, a native of Rapa, went to Easter Island and lived there until extremely

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171 532 revan wooden images than between the wooden and stone images of Easter Island. Mangarevan images share with the Easter Island stone statues the typical pursed mouth, but the differences are numerous.

Balfour (9, pp. 361-371), overlooking the Mangarevan parallels, stresses the similarity between the Easter Island stone images and canoe-prow gods and other representations of human form from New Georgia, San Cristoval, and other parts of the Solomon Islands. The proposed analogy strikes me as unconvincing, for the only similarities between the two types of image are the overhanging brows and the long upward-curving nose.

Comparative studies of the religious structures in eastern and central Polynesia reveal a remarkable analogy between the position of the Easter Island statues on the ahus and the uprights on the religious platforms of the Tuamotus, Society Islands, and Necker Island. Detailed research has convinced Emory that the uprights at the back of Tuamotuan ahus, bearing the names of ancestors, were either backrests for the gods or memorials to deified ancestors. In the Tuamotus and in Tongareva the unrights were sometimes trimmed. In the Tuamotus the shaping is often a crude attempt to express the human form. On Necker Island the small stone images of the gods rested against the slabs set on the platform. Between a carved upright and a statue, transition is logical, and it seems to have taken place on Easter Island. The development of the slabs into statues was facilitated by some knowledge of carving which the Easter Islanders already possessed when they settled on their isolated island. On some Easter Island ahus, pillars take the place of statues. At Mataveri such a pillar has one surface carved like the back of a statue.

174 532 The first immigrants to Easter Island probably came from eastern Polynesia and were acquainted with the carving of human figures from wood. Lacking wood in their new home, they applied their skill to the Rano-raraku tuff which is more easily worked than stone. Stimulated by the abundance of tuff and the ease with which statues could be transported across the open country, they created larger and larger statues until stone carving reached there a development greater than in any other part of Polynesia.

RELIGION

177 791 Easter Island religion was more deeply affected by the several catastrophes which befell the people than any other phase of their culture. Roussel (190, p. 424) says that the downfall of the religion took place long before the arrival of the missionaries and that "there remained only a few tapus of which they made little ado" (190, p. 495). Zumbohm (230, vol. 6, p. 128), in 1866, found no ceremony or religious cult in honor of any deity; the pre-missionary decadence of religious beliefs facilitated conversion to Christianity. Even the feasts had lost much of the ancient character, and had become "but

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CONCLUSIONS

174 The supposed mystery of Easter Island rests on the assumption that the culture of this speck of land was too elaborate to have been produced by the natives who lived on it when it was discovered by Europeans. In the opinion of many people, the monuments of this island are the expression of a refined and powerful civilization which was obliterated either by a natural disaster or by invasions. Those who hold that a cataclysm is responsible for the disappearance of this civilization believe that Easter Island is the remnant of a submerged continent or archipelago. Such views rest on mere speculation and not on observed facts.

174 133 When white men first landed on Easter Island, its surface and the outline of its coast were about as they are now. J. R. Forster was the first to suggest that a volcanic eruption was responsible for the wreck of a primitive Easter Island civilization. Geologists are unanimous in rejecting this explanation. No volcanic outbursts have occurred on the island since time immemorial. The rocks that cover the plains and look as if they had been shelled from the craters were actually shaped by weathering of the basaltic surface.

Like other volcanic islands of Polynesia, Easter Island contains no rock that would indicate a connection with continental formations. Moreover, the island is surrounded by great depths of water which preclude the possibility of a recently sunken land in its vicinity. As Chubb (50, p. 42) writes: "No perceptible movement of emergence or submergence has taken place since the post pleistocene fall in sea level, that is according to Daly, during the last 3,500 years."

The theory of a sunken continent is no more substantiated by anthropological facts than by geology. For instance, how can we reconcile the position of the ahus around the coast with the hypothesis that the island was formerly more extensive? It is true that several ahus are now threatened by the sea but these are built on the edge of cliffs of volcanic ash. Ahu Ohau is on the verge of the cliff, and the right wing was cleft into two by a fissure when I saw it. Probably by now the greater part of the ahu has crumbled into the sea, as did Ahu-rikiriki, on the western slope of Rano-kao. But the waves act very slowly on the basaltic part of the coast. The ahus built there will survive for a long time, unless they are destroyed by human hands. On the whole, it is evident that the ahus were built near the coast where they stand today.

Brown (27) supports the hypothesis that Easter Island is the remnant of a sunken archipelago, basing his contention on the purported discovery of an austral land by the buccaneer, John Davis. Supposedly, Davis was the last to see this land, which has never been identified. Brown should have asked himself how a cataclysm so great as to submerge an archipelago could

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have passed unnoticed in the eighteenth century and he should have questioned the accuracy of the position given by Davis to this land. If Davis discovered a land, it must have been Mangareva, the aspect of which corresponds to his description. Even if we admit that such an archipelago may have existed, there is no reason to suppose, as does Brown (*27*), that the Polynesian inhabitants needed to use Easter Island for the burial of their dead. There is no record of any Polynesian using a special island as a cemetery.

Neither the origin nor the end of the Easter Island culture can be interpreted through the theory of geologic change. Easter Island is not the remnant of a sunken continent or archipelago, nor was its civilization prematurely destroyed through volcanic eruptions.

Many scientists feel that the ancient Easter Island civilization was so remarkable that they persistently refuse to link it with the rest of Polynesia. The fact that the inhabitants at the time of discovery were Polynesians does not deter them. The usual solution of the problem has been to assume that these Polynesians represent a second wave of immigrants who occupied the island after previous people had developed a richer civilization than that brought by the invaders. But whence came these first settlers of the island? Of the many theories advanced to explain Easter Island civilization the only one that deserves scientific recognition is the hypothesis of its Melanesian origin. Physical anthropologists were the first to establish a link between the natives of Easter Island and the Melanesians. Under their influence, Balfour (9) pointed out several traits that in his opinion showed conclusively a relationship between these two regions of Oceania. His arguments can be summarized as follows:

1. An obsidian point of a type similar to the obsidian spear head (*matoa*) of Easter Island was found in the Yodda Valley in New Guinea. 2. The aquiline nose of the Easter Island wooden images suggests the Papuan type. The ear deformation of Easter Island natives is typical of Melanesia. The protruding mouth of the stone statues recalls the treatment of the mouths of carved images on boat prows of the Solomon Islands. 3. Bird-men are represented in both Solomon Islands and Easter Island art. 4. The frigate bird, as outlined on Easter Island, is a favorite motif in Solomon Islands ornaments. 5. The red tuff cylinders of the Easter Island statues represent artificially bleached hair, and bleaching of the hair is common in Melanesia (and Samoa).

These cultural parallels between Easter Island and Melanesia are exceedingly vague and indefinite. Obsidian points have been found by the hundreds on Easter Island; the New Guinea specimens are few. What makes the analogy striking is the correspondence between form and material. Obsidian could not be worked in the rest of Polynesia, since volcanic glass does not exist outside of New Zealand and Easter Island. The early settlers of Easter Island either must have carried the idea of using obsidian directly from New

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174 Guinea or resorted to this material independently on Easter Island prompted by the abundant deposits of Mount Orito. In New Guinea obsidian was seldom used; it played an important part only in the industry of the Admiralty Islands. The obsidian blades of the Admiralty Islands have little, if any, resemblance to the Easter Island spear heads. Thus unless we suppose that Melanesians from the Yodda Valley came directly to Easter Island, the chances are in favor of the reinvention on Easter Island of the working of obsidian.

I doubt that physical anthropologists will readily accept racial connections based on conventionalized wooden images. Balfour himself makes little of this parallel and suggests that the accentuated curve of the nose is an attempt to show the retrocession of the cartilaginous extremity of the nose after death. There is certainly an analogy between the ribs and the depressed abdomen of a single wooden image of the Chatham Islands and the Easter Island *moai kavakava*; otherwise the Moriori style of carving has nothing in common with Easter Island conventions. Balfour interprets this single analogy between Easter Island images and the Chatham Islands images as another sign of a Melanesian substratum in the Easter Island culture. His contention is that Melanesian elements formed part of the Moriori culture, but I do not think that this hypothesis has been proved beyond doubt. I feel that we cannot consider as a Melanesian culture trait an artistic convention which is lacking in Melanesia. Balfour also sees an analogy in the treatment of the mouths of Easter Island figures and the mouths of some prow images of the Solomon Islands. I fail to see this purely subjective analogy. The images he produces as parallels have a sort of snout but nothing reminiscent of the thin, protruding lips of the Easter Island images. The analogies between the designs representing frigate birds are more logical. But, as the Solomon Islands and Easter Island carvings are both naturalistic and represent the same species of bird, analogy is not particularly important. There are few ways of figuring the outline of a frigate bird.

Balfour's parallels appear to be superficial resemblances of a few traits selected at random in an area conspicuous for the divergence of its local cultures. Nothing fundamentally important is shared by Easter Island and Melanesian cultures. The analogies which are stressed are indirect and based on more or less hypothetical assumptions. Had Melanesia been the center of a culture superior to that of Polynesia, we might suppose that the excellence of Easter Island culture was due to Melanesian influences. But nothing in the Melanesian culture shows why it should have brought about a superior culture in Polynesia. Dr. Shapiro has given various reasons that militate against the Melanesian origin of part of the Easter Island population. His researches show beyond doubt that such a theory is based on false assumptions.

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If we dismiss the Melanesians as originators or stimulators of the Easter Island culture, the impulse toward higher achievements might be credited to an unknown people who settled on Easter Island either before or after the early Polynesians arrived. However, a detailed examination of all the archaeological remains on the island convinced me, as it did other impartial visitors, that Easter Island culture is one. All the stone structures belong to the same general type. The stone implements discovered up to the present show a remarkable unity and can be linked with stone implements in the rest of Polynesia. The giant statues stood on the ahus, typical Polynesian structures, built by the ancestors of present natives. The simple fact that stone house curbs were used to support the huge images shows that the people who erected them had the same type of house as Easter Islanders of the nineteenth century. The Easter Island language does not contain a single word which would indicate a foreign element. Few peoples are destroyed without leaving at least several words as testimony of their existence. All place names on Easter Island are purely Polynesian.

It is true that the tradition of the Long-ears and the Short-ears might be interpreted as pointing to the simultaneous existence of two races on the island, but the Long-ears were the direct ancestors of present natives. If the tale were true the Short-ears should have destroyed the Long-ears. The famous ditch of Poike is a natural formation and the ancestors of the present inhabitants built the monuments, though according to the legend, they were the work of the slaughtered Long-ears. This legend, perhaps ancient in its origin, may have been modified in recent time, since the practice of deforming the ear was discontinued.

Gusinde (95, pp. 352-355) tried to link Easter Island to the "Frei-mutterrechtlichen Kulturkreise." I give a brief summary of his arguments:

> Cultivation with the hoe, practiced by women; women's ownership of the fields; boatlike shape of the houses; earth oven; decidedly vegetarian diet of the natives; lack of condiments, even salt, for food; importance of cannibalism; outrigger canoe. The most striking evidence for the matrilineal character of Easter Island culture is the supposition that the soil is tilled and owned by the women. This feminine aspect is confirmed by the widespread use of stones with engraved symbols of the vulva which were set round the fields as boundary marks. These stones, according to Gusinde's information, were put on corners near the entrance to the fields. The inheritance went from mother to daughter. When a land changed ownership, the engraved stone was removed. Near these stones there were smaller ones of the same kind. No other significance is attached to them.

This summary of Gusinde's article shows how a conscientious and serious scholar can be misled by erroneous information. Gusinde probably got his data from Estella or Knoche, both of whom were unprepared to carry on ethnological inquiries. It is not true that the women till or have tilled the soil. Here, as in the rest of Polynesia, cultivation is man's work. The fields are not and were not owned by the women, and the succession usually went from

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174 father to son as elsewhere in eastern Polynesia. The natives were vegetarian only by force of circumstances. Other than fowls and rats they had no meat. Even fishing was not very productive, as the island is not surrounded by coral reefs. As to the other traits typical of the "Frei-mutterrechtlichen Kulturkreise", they are common to all Polynesians. According to Schmidt and Koppers they all belong to the "Frei-Vaterrechtliche Kulturkreis."

All the dissention comes from the postulate that the Easter Island culture is fundamentally different from other Polynesian cultures and that two races, one of which was Melanesian, must have contributed to its building.

Several authors have attempted to show parallels between Easter Island culture and the civilization of the South American Indians (161). These parallels are so fanciful or naive that I do not think it worthwhile to discuss them here. A word must be said, however, about the supposed discovery of two Easter Island spear heads in an Indian grave in Chile (3). The two specimens are no doubt from Easter Island but the circumstances of their discovery are so obscure that they cannot be taken as evidence of early intercourse between Chile and Easter Island. For sixty years Chile has been flooded with artifacts brought from Easter Island by the crew of the *Baquedano*.

Now that we have established the fact that Easter Island was occupied by a single wave of immigrants belonging to the Polynesian race, another problem faces us: where did these Polynesians come from and when did they settle on the island? The best we may hope for is to link Easter Island with some Polynesian culture area. Local cultures throughout Polynesia show a basic similarity, but they have developed peculiarities which give them a more or less distinctive pattern.

All the essential features which characterize Polynesia as a whole are found on Easter Island. As appears natural from its geographical position, Easter Island is associated most closely with southeastern Polynesia and New Zealand. None of the distinctive culture traits of western Polynesia, listed by Burrows, was recorded on Easter Island. On the other hand, a great number of the features proper to central and marginal Polynesia formed part of its culture. These are: bark-cloth retting, direct outrigger attachment, carved human figures, Rongo as primal god, procreative myth of the origin of mankind, and nights of the moon. To this list established by Burrows could be added, the stone platform or ahu, widespread in marginal Polynesia though lacking in New Zealand.

174 171 There is no doubt that Easter Island belongs to the marginal sub-area of central Polynesia culture. But in attempting to link Easter Island culture with a specific group of islands within this area we are faced with a considerable

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difficulty. No specific region of central or marginal Polynesia shows a marked and distinctive resemblance to Easter Island.

With New Zealand, Easter Island has in common: the short-handled club (*patu-paiu*); the long, narrow-bladed club (*taiaha*); adzes of Easter Island type 2; the horizontal method of thatching; bone needles; simple bone hooks, composite hooks; *kakari* stages for accumulating food; *tu-ahu* isolated and separate from the marae; the use of the word *koro* as term of address for father.

The Tuamotuan parallels are: plan and general aspect of the hut; plank canoes with bow-shaped strut; stone platform in the marae; feather headdress; creation myth of man; Rongo and Tangaroa as ancestors of the king; and dialect. According to Churchill (51) the Easter Island language is nearer to the Tuamotuan than to any other Polynesian dialect.

Analogies with Mangareva are particularly numerous: pavement in front of the houses; plank canoe with raised ends; general type of paddle; some features of the wooden images; confinement of chiefly children; full tattooing of the body; use of the word *ivi-atua* for priest and of *kurumanu* for commoner; type of the sacred structures; burial vaults in the marae; exposure of the corpses on a scaffold; *rongorongo* (professional chanters) association.

Marquesan parallels are: fowls; tapa images; big stone statues on platforms; carving of high relief figures; cutting of stones; long, narrow-bladed staves; perforation of the ears; full tattooing of the body; conventionalized figures with big eyes; *rongorongo* association.

Hawaiian parallels are: horizontal method of thatching; composite hooks; stone mortars; stone platform or *ku-ahu* of the heiaus; stone platforms of Necker Island.

Between Rapa and Easter Island there is no specific parallel, though Rapa is considered by many as the home country of the Easter Islanders. This view is an illusion created by the modern name of Easter Island, Rapa-nui (The-big-Rapa).

The hypothesis of a Mangarevan migration to Easter Island presents two important inconsistencies. First, the Easter Islanders could not have obtained their fowls from Mangareva where there were none; and second, they did not apply the word marae to their sanctuaries. Fowls might have disappeared from Mangareva as pigs did in the seventeenth century, but this is not likely. On the other islands the introduced fowls multiplied even without man's care. The word marae is absent in the Easter Island vocabulary, where only the old term ahu is applied to the sacred stone structures. The fusion of the assembly court (marae) and the stone platform (ahu) into a single monument is a later Polynesian development that occurred in the central area. In the Marquesas we have both terms: ahu being widely used in the north and *mea'e* in the south, a geographical distribution suggesting influences from the Society Islands or the Tuamotus.

If, because of these two inconsistencies, we should discard Mangareva as the homeland of Easter Islanders, the Marquesas would be the only acceptable solution. The Easter Islanders could not have come from the Tuamotus, for all their cultivated plants indicate a high island as the only possible source of their culture.

The Marquesan culture as we know it is, no doubt, very different from that of Easter Island, but the traits which differentiate it are later local

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developments that distinguish the Marquesas from the rest of Polynesia. To pay attention only to the specialized forms of the Marquesan arts and crafts and to take for granted that from the very beginning the Marquesan culture was strongly individualized is a procedure as arbitrary as projecting into the past the present features of the Maori civilization.

It is true that the Easter Island house is entirely different from the Marquesan type, but the structure of the Easter Island house was conditioned by the lack of wood.

The Marquesan ahus or *mea'e* are widely different from the Easter Island ahus, but Emory thinks that there is nothing ruling out a basic similarity. The irregular Marquesan structures grew out of the primitive platform and court adjusted to steep valleys which did not favor the regular disposition of a platform and court. If the Mangarevans came from the Marquesas, they might have retained the primitive form of the stone sanctuary, a type that is closely connected with the Easter Island ahu. We do not know whether the Easter Islanders used to build a sacred house near their ahus. The famous *koro* houses may be connected with this category of houses.

The most striking resemblance between the ahus in the Marquesas and on Easter Island is their use as burial places and the presence of stone statues on the highest platform. There were no statues on the Mangarevan maraes. Of course the conventions of the Marquesan stone images are widely different from those of Easter Island, but we know that this style must be more or less recent in the Marquesas since it does not occur anywhere else.

The Marquesans like the Easter Islanders were completely tattooed, but the motifs had little in common. They were inspired by artistic patterns that developed independently in the two areas.

Easter Island and Marquesan arts have nothing in common except for the big-eyed representation of the human face that is practically identical in the Marquesan wood carvings and in the Easter Island petroglyphs.

The association in the Marquesas of chanting and some sort of mnemonic device (knotted string) bears a resemblance to the tablet system. Though the relation between the two traits is not striking, it may rest on the same fundamental idea.

If the Easter Islanders really came from the Marquesas we must assign an early date to this migration and put it in a period when the Marquesan culture was still undifferentiated and closely connected with that of the Mangarevans and the Maori. The clearly marked affinities between Mangarevan and Marquesan culture have been established by Dr. Buck on the basis of comparative studies. The Mangarevans and the Marquesans share not only a great many culture traits but a series of words for economic plants. These analogies between Mangarevan and Marquesan cultures are responsible for

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the difficulty that we have when trying to determine the exact point from which the Easter Islanders migrated. 174

In this study I have reached the following conclusions: culturally Easter Island has traits in common with each of the regional cultures of marginal Polynesia. We cannot assume that each of these regional cultures has directly influenced Easter Island or that Easter Island immigrants came from each of these separate islands. The only possible explanation for this great number of parallels is that the Easter Islanders left central Polynesia at an early date, before any of the later local cultures had developed. We must suppose that at one time the ancestors of the Tuamotuans, Mangarevans, Marquesans, and Maoris resided in the same group of islands and had a single culture. After centuries of isolation on the different islands that they reached by successive migrations, they elaborated and changed their primitive culture, stressing some of its aspects and dropping others. If the Easter Island culture was an offshoot of some specific Polynesian culture, it would have preserved more traits characteristic of its original source. Easter Island culture, like the other regional cultures of Polynesia, developed and stressed certain aspects of the common heritage. The analogy between Easter Island culture and that of New Zealand seems to indicate that the ancestors of both peoples left central Polynesia at approximately the same time. At that period the ahu had not yet been fused with the marae and Tangaroa was not yet the great god of mythology. The Easter Islanders may have been among the early emigrants who spread toward the east, occupying the Tuamotus, Mangareva, and the Marquesas. After a sojourn in the Marquesas or in Mangareva, which was perhaps not long they sailed toward the east and discovered Easter Island. At the time when they left Mangareva or the Marquesas the two cultures had not developed the specific pattern they had when Europeans discovered them in the nineteenth century. The Mangarevan genealogies date back to the twelfth century, but traditional history mentions early immigrants who settled on these islands and then left for other countries, leading a restless life. Hotu-matua and his followers might have been a defeated tribe of Mangareva.

Because of lack of wood, the art of navigation degenerated on Easter Island. Wood became a precious substance, like jade in New Zealand, hence ornaments were made of wood. The only local invention made by the Easter Islanders seems to have been the wooden tablets. Their meaning is obscure; they might have been some sort of primitive pictography, but even this is not definite.

Each region of Polynesia stressed and perfected an aspect of its culture. The Marquesas specialized in tattooing until it became their most perfect expression of native art. The Maoris turned their skill to wood carving, tattooing, and the fabrication of jade ornaments. If we keep in mind the achievements of the other Polynesian cultures, the giant statues of Easter

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174 Island do not seem so exceptional or contrary to the Polynesian genius. They also represent a specialization and an achievement which local conditions explain sufficiently without the interpolation of a sunken continent or Melanesian invasion.

The aim of this book has been to show that Easter Island is a local Polynesian culture which developed from an archaic and undifferentiated Polynesian civilization. But I hope that another lesson may be drawn from this book—the fact that cultures are not static, that they do not need external stimulus and influence to develop and reach some degree of perfection. On the most solitary inhabited island in the world, Easter Islanders were able to develop and perfect the culture which they received from their Polynesian ancestors to the west.

2:Ferdon A-5 (1956) 1957
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584 in-law as a gift. The father-in-law accepts the gift and immediately gives a rooster
574 to each of his brothers and sisters. If one of his brothers has given a feast in his
431 honor,[6] he will then take the remainder of the string of birds and drape it over
[606] the neck of this particular brother. In doing this he gives the brother the honor of starting the apportioning of the roosters among the members of the extended family. The brother so honored takes the roosters and gives them to his wife who, after taking one herself, passes the string down through the relatives until each has one of the birds. In this act the brother has, in effect, been given the same honor as that of the "secretary," or *motuha*, who distributes the gifts at the time of a wedding.

174 The strong position of a wife's father may hark back to an earlier custom
584 whereby a mother or father, noting a hard-working bachelor with a good planta-
606 tion of yams, *camote*, sugar cane, etc., presented their daughter to the man for
581 his acceptance or rejection. Neither the desires of the daughter nor the age of the bachelor in relation to the girl's was considered.

584 The operation of such a marriage was described as follows. Noting a hard-working bachelor and seeing in him an opportunity for a "wealthy" marriage for their daughter, the father of the girl would either send his daughter to the man, or more commonly, take her to the bachelor's home. Upon entering the house, the father would ask, "Where are you?" and the bachelor would answer, "Here I am," whereupon the father would leave the girl in the house and say, "Here." If the bachelor accepted the girl he immediately went outside and gathered together chickens, yams, *camotes*, and other foods to make a big *umu* feast for the
[586] girl's father. However, if at some future date the girl's father felt that his daughter's husband was no longer working hard in his fields or at fishing, he had the right to come and take her away and give her to some other man. In extreme cases a girl was allowed to leave her husband and return home.

177 Today such forced marriages no longer exist, but a father may counsel his
584 daughter to marry some hard-working bachelor of his choice. If she refuses he will wait awhile and again counsel her, repeating this advice until she marries the man. As one of my informants put it, "He will keep counseling her until the idea
[581] and the advantages of such a marriage are well in her head." In such marriages one interesting change has been made. No daughter is "counseled" into a marriage with a man too much older than she, for, "See how much older brothers fight with their too young sisters — it is the same with such a marriage."

6 Presumably this refers to a *horo*, although according to Métraux such feasts honoring a brother were not common.

2:Ferdon A-5 (1956) 1957
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tablets are guarded by "devils" that will, in extreme cases, kill a man who stumbles upon such a cave and steals one of the tablets.

I had no time nor opportunity to delve into any beliefs that might exist regarding what happens to a person after death, but I suspect that here the church has made deep inroads, for the dead are now given the last rites of the church and then buried in a Catholic cemetery.

Immediately upon the death of an individual a certain amount of grief will be shown by the immediate kin, but this appears to be more the result of natural shock than of any culturally determined mourning pattern. Between the time of death and the holding of last rites, the body is kept on view in the victim's house, after which it is carried in its coffin to the church where the last rites are administered by the island's priest. As the body is carried from the church to the cemetery the cortege breaks into song. Some of these are of the slow, religious type, but many have an almost gay lilt. During and after the church services there is no overt expression of mourning on the part of the nearest kin, but as the casket is lowered into the ground a near-hysteria of grief breaks out among the closest relatives of the deceased and is explained by my informants on the basis that this is the final separation from a beloved one.

Since, as appears to be the case, the strongest impact of death comes with the physical parting of the dead from the living, one cannot help but wonder if this final show of extreme mourning is a direct result of the more abrupt practices of Christian religion rather than an Easter Island trait of long standing. It was not, after all, many years ago that burial exposure was practiced: by this method, at least the fleshy parts of the body disappear slowly over a length of time — it is only after the bones are left that final burial takes place in a tomb, usually a surface stone structure or a vault within the platform of an *ahu*. The change from a long drawn out physical relationship with the body to a sudden disappearance of a body in a pit, and the change from customary surface burial to sub-surface interment must have required considerable psychological adjustment. Today's overt manifestation of extreme grief as the body is lowered into the ground may, therefore, indicate that this adjustment to a new burial practice is not complete. On the other hand it may, perhaps, reflect a mourning pattern formerly used when the fleshless bones were given their final resting place.

During the evening of the day of burial the family of the deceased gives a large *umu* feast, often including music and dancing, for all visitors. At this time there are certain taboos with regard to the eating of the *umu* food by the immediate family. Thus, if a father dies neither his brothers and sisters, his children, nor his wife may partake of the food thus prepared. If a child has died neither

4:Metraux E-5 (1934-1935) 1945
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do well for themselves by barter with the white sailors who visit the island, but the women cannot be so provided for. They complain bitterly of the difficulty they have in satisfying their coquettish taste.

For an anthropologist, the material on Easter Island is rather scant. The old culture has nearly gone. No Westerner ever saw it while it was still functioning. The data on the past, which can be gathered, are limited to statements or tales which a few people have heard from fathers or grandfathers. Nevertheless, I was surprised to find a relatively rich folklore, which helped me to understand many aspects of the ancient civilization. Both legends and anecdotes stress cannibalism, which seems to have haunted the imagination of the Easter Islanders before the arrival of Christianity.

Those who expect to find in these traditions any evidence for the existence of a civilization previous to that of the Polynesians will be sadly disappointed. There is not a single feature of the Easter Island lore that does not point toward Polynesian origin. The language itself is pure Polynesian, and no words now in use hint of a legacy from any other linguistic stock.

These are the main facts to bear in mind as we turn to the problem posed by the mysterious gigantic statues and the inscribed tablets. But before we go into it, we must first consider what is to be said of the theory that the island is a peak of a sunken continent, since upon this assumption the classic interpretation of its mysteries has for a long time rested. There is no scientific evidence that Easter Island is the wreckage of such a sunken continent—Lemuria or Atlantis. It is plainly a typical volcanic island of recent origin, formed by a series of eruptions originating on the floor of the ocean. Soundings have revealed a depth of 1,770 fathoms 20 miles from its coast. Moreover, when the island was settled by Polynesian migrants it does not seem to have been much more extensive than it is now. Its coasts are subjected to continual erosion from the waves, and it is true that during the last decades a few of the monuments which once stood on the top of a high cliff have been precipitated into the sea. But since the ancient sanctuaries were erected along the shore, if the erosion had been very great, all of them would have been washed away by now. There has also been a question about a great road which, it is said, ran to the shore of the island and continued under water, suggesting that the shore was once much farther out. The famous French writer, Pierre Loti, was, if I am not mistaken, the first to mention this "triumphal avenue," which he thought would lead to the heart of the mystery. On a simple statement of this traveling poet visions of submerged glory have been based, and many good minds have allowed their imaginations to follow the submarine road down to enchanted palaces. The truth is that no such road exists. What Loti took for

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a paved highway is seen on close examination to be only a bed of lava that in its flow reached the sea.

Other writers, abandoning the hypothesis of the sunken continent, have advanced the view that Easter Island is the center of an archipelago which vanished beneath the waves in a great cataclysm not so many centuries ago. They suggest further that the inhabitants of this supposed string of islands had used Easter Island as a burial place for their dead. According to this surmise, the dream Land of Davis would have been among the many islands that were submerged. But no geological facts can be found to support this theory either. We know, too, that the sanctuaries of Easter Island continued to be used as burial places by the islanders as recently as 70 years ago. Ruins of old villages near the monuments are added evidence that this speck of land was inhabited by the living in former times as it is today, and that it could not have been merely a mausoleum.

However, there remains the baffling fact that such a diminutive island is covered with great statues, some of them 30 or 40 feet high and weighing many tons. Despite my skepticism about the elaborate theories offered in explanation of this miraculous flowering of sculpture, I must confess that I, too, like all previous travelers to the island, was overwhelmed by a feeling of astonishment and awe when I first saw them.

There are few spectacles in the world more impressive than the sight of the statue quarry on the slopes of Ranoraraku. The place is indeed sinister. Imagine a half-crumbled volcano, a black shore line, and huge cliffs which rise up from the sea with smooth green pastures above them. Guarding the quarry, near the volcano, is an army of giant stone figures scattered in the most picturesque disorder. Most of them still stand out boldly. Successive landslides have partially covered others, so that only their heads emerge from the ground, like those of a cursed race buried alive in quicksand. Behind the rows of the erect statues, along the slopes of the volcano, there are 150 figures still in the process of being born. Wherever one looks in the quarry, one sees half-finished sculpture. Ledges of the mountain have been given human shape. Caves have been opened in which statues rest like those on medieval sepulchers in the crypt of some great cathedral. Hardly a single surface has been left uncarved by the artists in their frenzy to exploit the soft tufa of the mountain.

There is something weird in the sight of this deserted workshop with the dead giants all about. At every step, one stumbles over discarded stone hammers. It is as if the quarry had been abandoned on the eve of some holiday, and the workers were expecting on the day after to return and resume their tasks; indeed, in several cases, only a few more blows would have been needed to cut the statues finally free from the rock of the slope.

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172 give up hope that the remains on Easter Island will help to solve
114 the problems of early American civilizations.

174 The result of 3 years' work on the island culture pursued at the
173 Bishop Museum in Honolulu, with which I have been associated, shows that this Ultima Thule was discovered and settled by Polynesians, who arrived in a fleet of double canoes sometime, roughly, between the middle of the twelfth century A. D. and the end of the thirteenth. The time of the discovery and settlement can be established approximately from the lists of chiefs that have come to us. These the early missionaries took down from the dictation of the natives. I was permitted to copy another one from a list which my native informant had compiled himself. Many errors have, of course, slipped into these records, but a comparative study of them shows that Easter Island has been ruled by about 25 or 30 chiefs since the founder of the dynasty, Hotu-matua, and his people first came to its shores. Allowing 25 years for each ruler's reign—the usual method of measuring time in Polynesian annals—we find that this must have happened very close to the twelfth or thirteenth century. From other sources, we know also that this was a period of great sea expeditions, and that the settling of New Zealand and of many other islands in the Pacific occurred in what seems to have been a heroic age of ancient Polynesia.

173 Curiously enough, the oral tradition of the migration to Easter Island has been preserved remarkably well even down to the present. While I was there, I was told in great detail many more or less legendary incidents of the voyage eastward of Hotu-matua and his associate, the noble Tuuko-ihu. These stories with their core of history were the glorious sagas of the first emigrants to this little lost world.

174 At about the same time, the Tahitians, Maori, and Marquesans had a culture which was still undefined but was very similar in the different groups. In the course of the succeeding centuries, over each of these island areas a civilization developed along original lines, though still retaining the common background. The Easter Island culture belongs to this purely Polynesian type. The ancestors of the present population merely improved upon the legacy they received.

Where then did the Easter Islanders come from? Since they are Polynesians in race, language, and culture, the problem of their origin coincides with that of the Polynesians as a whole and is as yet unsolved. That the Polynesians came from Asia is beyond doubt. India, Assam, and Indo-China have been variously given as the cradle of these seafaring tribes, but sufficient evidence to validate these theories is still lacking. Within the Polynesian world the Easter Islanders offer
[171] many analogies with the Maori of New Zealand, the people of Mangareva and those of the Marquesas. Actually the resemblances between Easter Island culture and that of the Marquesas are very striking. It

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is possible that the Easter Islanders were among the early Polynesian emigrants who spread from central Polynesia toward the east, occupying the Tuamotus, Mangareva, and the Marquesas. Very likely after a sojourn in the Marquesas some again sailed eastward and discovered Easter Island. At the time they left the Marquesas their culture, of course, had not yet developed the specific pattern which characterized it when the Europeans landed there in the eighteenth century.

The genealogies of Mangareva, the nearest Polynesian island to Easter Island, date back to the twelfth century, but traditional history mentions early immigrants who settled on these islands and then left for other countries, leading a restless life. Similar traditions exist among the Marquesans. Hotu-matua, the discoverer of Easter Island, and his followers may well have represented a defeated tribe or a junior branch of the Marquesas or Mangareva.

What remains today of their work is evidence of the beauty and greatness of their isolated civilization, revealing the vigor and audacity of these Polynesians who spread over what seem once to have been the happiest islands on earth.

9: Forster T-5 (1774) 1777
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detestable roads, where not a single tree appeared to give us shelter from the scorching sun. I rewarded my friendly conductors with all the Taheitee cloth, and iron ware, which I had about me, and arrived safely on board with the party." 1774. MARCH. 175 X

From this narrative it is evident, that the most diligent enquiries on our part, have not been sufficient to throw a clear light on the surprising objects which struck our eyes in this island. We may however, attempt to account for those gigantic monuments, of which great numbers exist in every part; for as they are so disproportionate to the present strength of the nation, it is most reasonable to look upon them as the remains of better times. The nicest calculations which we could make, never brought the number of inhabitants in this island beyond seven hundred *, who, destitute of tools, of shelter, and clothing, are obliged to spend all their time in providing food to support their precarious existence. It is obvious that they are too much occupied with their wants, to think of forming statues, which would cost them ages to finish, and require their united strength to erect. Accordingly, we did not see a single instrument among them on all our excursions, which Could have been of the least use in masonry or sculpture. 174 532 [161] [142]

* The Spaniards in the S. Lorenzo, and frigate Rosalia, make the population of Easter Island amount to between two and three thousand; but it may be doubted whether they examined the interior country, as well as our people. See Mr. Dalrymple's Letter to Dr. Hawkesworth.

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1774. MARCH. could have been of the leaſt uſe in maſonry or ſculpture. ● 174 We neither met with any quarries, where they had recently 532 dug the materials, nor with unfiniſhed ſtatues which we might have conſidered as the work of the preſent race. It is therefore probable, that theſe people were formerly more numerous, more opulent and happy, when they could ſpare ſufficient time to flatter the vanity of their princes, by perpetuating their name by laſting monuments. The remains of plantations found on the ſummits of the hills, give ſtrength and ſupport to this conjecture. It is not in our power to determine by what various accidents a nation ſo flouriſhing, could be reduced in number, and degraded to its preſent indigence. But we are well convinced that many cauſes may produce this effect, and that the devaſtation which a volcano might make, is alone ſufficient to heap a load of miſeries on a people confined to ſo ſmall a ſpace. In fact, this iſland, which may perhaps, in remote ages, have been produced by a volcano, ſince all its minerals are merely volcanic, has at leaſt in all likelihood been deſtroyed by its fire. All kinds of trees and plants, all domeſtic animals, nay a great part of the nation itſelf may have periſhed in the dreadful convulſion of nature: hunger and miſery muſt have been but too powerful enemies to thoſe who eſcaped the fire. We cannot well account for thoſe little carved images which we ſaw among the natives, and the repreſentation of a dancing woman's hand,

9:Forster T-5 (1774) 1777
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hand, which, as I have mentioned above, are made of wood, at preſent not to be met with upon the iſland. The only idea which offers itſelf, is that they were made long ago, and have been ſaved by accident or predilection, at the general cataſtrophe which ſeems to have happened. All the women whom we ſaw in different parts of the iſland, did not amount to thirty, though our people croſſed it almoſt from one end to the other, without ſeeing the leaſt probability that the women had retired to any ſecluded part. If there are really no more than thirty or forty women, among ſix or ſeven hundred men, the whole nation is in a fair way of becoming entirely extinct in a ſhort ſpace of time, unleſs all our phyſical principles on the plurality of huſbands are erroneous. The greater part of the women whom we ſaw gave us no reaſon to ſuppoſe that they were accuſtomed to a ſingle partner; on the contrary, they ſeemed habitually to have arrived at the ſpirit of Meſſalina, or of Cleopatra. But this diſproportion is ſuch a ſingular phænomenon in human nature, that we cannot without difficulty give credit to it, and would willingly lay hold of any argument which, though incumbered with difficulties, might reſtore the proportion between the ſexes. It is true our party did not ſee any valley or ſecluded glen, to which the women might have confined themſelves during our ſtay; but I muſt remind the

1774. MARCH. 174 532 175 162

10: Cooke D-5 (1886) 1899
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262 inferred from the statements contained in these pages, is never an elaborate one, it may readily be seen that they never suffer for lack of food of some sort, the principal items being sugar cane, taro, and sweet potatoes. Then, too, they are not heavy eaters, and gluttony with its attendent corpulency, so common in some of the other islands, is quite unknown here.

351 There are no fences or inclosures of any sort about their houses, which stand in the open field, with the grass growing to the doors, and nothing of an offensive nature was observable in the vicinity.

POPULATION, MANNERS, AND CUSTOMS.

● 174 172 It is difficult to obtain accurate information regarding the population of the island prior to the year 1860. That a numerous people must have existed here during the days of the image builders seems to be well attested by the works they have left behind them; the multitudes of colossal stone images and crowns; the numbers and vast size of the platforms on which these stood; the great paved areas beside them, which afforded room for large assemblages; the masses of foundation stones scattered over the island, many of which, still in position, show the strange shapes given to the houses which were erected upon them, and even admitting that these antiquities, and the work of fashioning them, covers a period of many years, the fact remains, nevertheless, that the immense labor involved, aided merely by the rude stone implements, which alone they were known to possess, must have necessitated the employment of a vast number of laborers. These, with their families, those engaged in the cultivation of the soil, in fishing and otherwise providing food, the aged and infirm, and those employed in other pursuits, must have made up an aggregate much larger than would at first sight appear.

With reference to the length of time covered by these works, it would seem, from the large number of images still to be seen on Rana Roraka, both inside the crater and on its outer slope—some finished, others only partly so, and others still in the quarries—that there was a large amount of work in process of execution at the same moment, and that, judging from the condition in which it was found, some sudden calamity must have overtaken the workmen, causing all labor to cease abruptly.

Indeed in respect to the astonishing number of volcanic stones so evenly scattered over the surface of the island, especially on the eastern half, it does not seem reasonable to suppose that they were there when the place was densely populated, of which latter circumstance there can scarcely be a doubt. This remark applies with especial force to the great plain at the foot and to the westward of Rana Roraka, where a large town is supposed to have existed, inhabited in part, it may be presumed, by the great numbers of workmen employed in the quarries of that mountain. Admitting this to be true and associating this with the fact that large numbers of the images seen in this vicinity are in

10: Cooke D-5 (1886) 1899
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an unfinished condition; that many more are to be found in the quarries, both inside the crater and on its outer slope, in all stages of development; and inferring from this that the workmen suddenly ceased their labors, the thought readily suggests itself, in explanation of the mystery, that either Rana Roraka or one of the neighboring volcanoes suddenly entered into a state of activity, threw out these showers of stones and, probably destroying many lives, stopped the labors of the workmen, which were thenceforth never resumed. Perhaps, too, the same calamity overthrew many of the idols, of which not one is now standing on its pedestal, laid waste the island, and wrought the destruction of the trees which once adorned it, and from the period of the occurrence of that disaster, the time of which can only be remotely guessed at, dates the decadence of the ancient people of Te Pito te henua.

The soil of the island is very rich and productive, scant and unpromising as it may appear in many places, and with proper clearing and cultivation, and the planting of the appropriate varieties of food, such as could be stored for consumption during the dry season, supplemented by the sustenance to be derived from the supplies of fish taken, with which the waters abound, a very large population might, no doubt, be maintained.

As to the supply of water requisite for such a number of people, objection on that ground is not insuperable. Diligent search was made by the writer for the remains of cisterns, or any other evidences which they might have left of having had reservoirs for the storage of the precious fluid. None such were to be seen anywhere, and yet they might have possessed them, but of so perishable a character that all traces have long since been obliterated. It seems certain that they had no knowledge of any cement; it is not likely, therefore, that their reservoirs would have been built of stone. Then, too, there remains the fact of the immense bodies of water stored in these natural cisterns, the craters, particularly of Rana Kao. Here is a volume of water, at the present time at least 300 feet in depth, with a circumference at the surface of 2½ miles, and, if the parts of the crater visible above the water line be extended downward, probably conical in shape. A moment's consideration will show that here is a supply of water sufficient for an almost unlimited number of beings for an indefinite period. It may easily be imagined, also, that measures were most likely taken to maintain its purity, and that a people as intelligent as they appear to have been had some device for obviating the labor of transportation to the top of the crater.

From what has been said it would appear that, even at the present day, the physical characteristics and natural conditions governing the island are not incompatible with the existence and well-being of a large population. I was not surprised, therefore, when Mr. Salmon informed me that from 1850 to 1860 the number of inhabitants was

10: Cooke D-5 (1886) 1899
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estimated at 20,000, although other calculations give much smaller figures. I am of the opinion that in the days of the image and platform builders the population might have been even larger.

About the year 1863 the Peruvians carried off from the island in 15 vessels, as it is alleged, 5,000 of the inhabitants as agricultural laborers in Peru and to work the guano deposits of the Chincha Islands. By reason of the odium attached to this proceeding, the Peruvian Government, some time afterwards, was induced to return those who had not succumbed to their treatment and altered conditions of life. Smallpox broke out among these on the return voyage. It is stated that all except two died, and the disease, spreading among the people ashore, ravaged the island, many deaths resulting. Of those carried off by the Peruvians one old man, Pakomeo, who was taken to the Chinchas, and whom we saw, still survives, the last of the unfortunates.

Down to the year 1861 cannibalism is said to have been practiced by the natives. In that year a Jesuit mission was established on the island, at which time the population numbered about 1,500. Through the influence and teachings of the missionaries an almost radical change was wrought in the manners, habits, and character of the people, and, to a certain extent at least, they adopted the customs of civilized life.

When H. M. S. *Topaze* visited the island in 1868 there were but about 900 natives left, of whom less than 300 were females, with the numbers still rapidly declining, the proportion of deaths to births being given as 3 to 1. About the year 1875 some 500 were removed to Tahiti under contract to work on the sugar plantations of that island.

In the year 1878 the missionaries, who had done admirable work among them, departed from the island, taking with them about 300 of the people, who settled Gambier Archipelago.

When H. M. S. *Sappho* touched at the island in 1882 it was reported that but 150 of the inhabitants were left.

On the occasion of the *Mohican's* visit I received from Mr. Salmon, who had a complete census, with the names of every man, woman, and child on the island, the following summary:

Natives	155
Foreigners	11
Total number of inhabitants	166
Native men	68
Native women	43
Boys under 15 years of age	17
Girls under 15 years of age	27
Total number of natives	155
Tahitians	6
English	2
Americans	2
Frenchmen	1
Total number of foreigners	11

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114 in a part of the southern ocean far removed from that in which the
133 gaunt cliffs of Easter Island confront the unceasing assault of the waves. It is surrounded by vast ocean depths which occur in the expanse of 2,500 miles of ocean separating the island from the American coast on the east and from the nearest land 1,750 miles to the west, namely the Gambier Islands. Easter Island is a volcanic island, and a lofty one, like the Marquesas and Hawaii, in contrast with atolls and coral islands which are low-lying. If one could denude such islands of their dense coverlet of mango-scrub, breadfruit trees, bamboo and cocoa palms, drain the springs, and cover them with a growth of yellow herbage—then such an islet as Hivaoa of the Marquesas will come to resemble Easter Island.

132 It is the bareness of Easter Island, the result of its colder climate and exposure to the four winds of heaven, which has given birth to these misconceptions. The idea of Polynesia does not fall in with a barren rocky landscape, monotonous pampa, or a pale sun incessantly obscured by rain-clouds.

144 These talkative Pascuans,[4] like naughy laughing children, whose language and appearance is Polynesian without a shadow of doubt, can no longer be denied those ancestors who carved the notorious statutes, engraved the puzzling symbols of *rongorongo* and set up round the island's coast all those innumerable monuments (actually 184).

174 At what date was Easter Island first settled? There are excellent reasons for believing that it was between the twelfth and thirteenth centuries of the Christian era. We have certain traditions relating to the peopling of Hawaii and New Zealand. The Polynesians established themselves there at the end of their migrations between the eleventh and thirteenth centuries. Considering the remoteness of Easter Island, it is reasonable to suppose that it was peopled about the same time. The approximate date of the colonization of this island is, however, based upon the list of the Pascuan kings. This list has been narrated to several observers; the most complete is that of Thompson[5] who obtained it from an informant who was a survivor of the pagan period. One may assume a length of 19 years for the reigns of each of the 57 kings in the list. Maurata,
[43] the last Pascuan who was certainly regarded as a king, died in 1864, as a result of the Peruvian slave raids. Calculation gives us exactly the beginning of the thirteenth century.

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[4] We may well adopt the English equivalent to avoid the clumsy "Easter Islanders."—Translator.

[5] A paymaster of the American Navy, and the author of a short archeological account which, considering that it was based merely upon a visit of 8 days, is remarkably informative and full. (Rep. U. S. Nat. Mus., 1889, pp. 447–552, 1891.)

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But how can one account for the achievement of such a long journey? The Polynesians possessed vessels that could face the open sea; they were capable of taking sometimes more than 100 oarsmen and passengers. Further, they put to sea in squadrons. The canoes kept just as far apart as was possible without losing sight of each other. At night they came together. By thus distributing themselves over the surface of the sea they were able to discover even the smallest islands. Some canoes were lost, but there were enough to ensure that some should reach their objective. Navigation was by the stars, according to the direction of ocean currents and as the wind allowed. But in the Pacific there are regular winds in each season.

Whence came the Pascuans? Every indication points to the Gambier Islands. The similarity of the Mangarevian and Pascuan languages is a valuable clue. Then the Gambier Islands contain ancient monuments which call to mind the *ahus* more than do any of the other *marae* of Polynesia. Father Honoré Laval, in an unpublished account [6] giving valuable information about the ancient culture of the Gambier Islands, speaks of statues resembling those of Easter Island. Finally, the Gambier Islands are those which are nearest to it on the west. The Polynesians probably found Easter Island devoid of monuments and uninhabited; but this statement lacks proof.

The present Pascuans would appear, then, to be the direct descendants of the architects and sculptors of the ancient monuments. Proof of this is to be found in a comparison of these monuments with those of other Polynesian islands. One must also cite the traditions current at the time of the first contact with white men, in which the names of sculptors and of their direct descendants were mentioned.

But there are also certain obvious facts of a common-sense kind. Many of the traditions relate to the construction of *ahus* at a very recent date. Now the statues were merely accessory to these burials—the images of ancestors set up there. If the monument is of recent date, that which adorns it will naturally be so too. Then again, the evidence of the first foreigners to arrive is in agreement; the *ahus* were in living use at the end of the eighteenth century and were seen by Gonzales and La Perouse. We collected traditions reporting that ceremonies were held there still during the nineteenth century.

There is no evidence of the existence of two cultures. Up to quite modern times, when the *ahus* were being made and used, the rites and ceremonies centering round Motunui and Orongo [7] and the great

[6] This will shortly be published, through the agency of my Swiss colleague Alfred Métraux, by the Bishop Museum, Honolulu.

[7] An islet and village situated to the west of Easter Island.

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194 764 god Makó Makó continued to take place. The last bird-man was drawn, according to Thompson, in 1880. It may be recalled that the house of the bird-man, the tomb reserved for him, was inside the *tapu* surrounding the quarry whence came the statues and where the oldest still stand. This is presumptive evidence in favor of a close connection between the cult of Orongo and that of ancestors. Perhaps sufficient importance has not been attached to the fact that Orongo contains breccia sculptures from Rano Raraku,[a] and that it is from Orongo that there came the most perfect example of the typical Easter Island statue, that at the British Museum.

194 532 Take on the other hand all those manifestations of the plastic skill of the Pascuans—the sculptures on stone and wood, the designs of the rock-carvings and tablets, of the rock paintings and tattoo marks. The technique varies with the raw material, but the uniformity of style is indisputable.

194 The abrupt end, as it seems, of the activities of Rano Raraku has been invoked both by the adherents of the theory of an age-old lost civilization and by those who favor the idea of a dual Pascuan culture. But the arrest of activity can be explained by simple, almost contemporary, causes. The exploitation of the volcano was controlled by the clan of the Tupahotus, and, as everywhere in Polynesia, by a group of specialists. It required only a war to partially destroy the specialists—and tradition tells of many wars at the beginning of the nineteenth century. An epidemic imported by the [164] whalers might equally be responsible; today each vessel that arrives brings some malady to the Pascuans. Finally, the Peruvian raids (1859–61) are traditionally reported to have given the coup-de-grace to the class of *maoris* (exports).

194 412 The fact that in 1886 the Pascuans had already forgotten how and why their activities had been brought to a close, as well as other facts about their culture—such as how the statues were transported, and the meaning of the tablets—is no evidence of the antiquity of these facts, nor does it justify an attribution to another culture. For we have seen these same Pascuans refusing to admit that the stone adzes could have been used to work wood; while it is certain that before 1860 iron must have been very rare in the island, and that their immediate forebears must necessarily have worked wood with the aforesaid adzes. On the other hand they freely admit that adzes and stone chisels were used to work the two kinds of andesite of which the statues, bols, and house stones were made. By a curious inversion the Pascuan regards wood as being harder and more difficult to work than

[a] A volcano in the eastern part of Easter Island. On its slopes is the quarry where the statues were hewn.

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stone, so easy to fashion is the stone of this island. This argument[9] can be used against those who put forward the alleged difficulty of carving igneous rock as a reason for attributing them to a race more skilled, more strong, and gifted with better implements than the Polynesians.

But to return to the first Polynesian colonists. Very probably the fauna and flora of Easter Island were extremely restricted. But following a custom common in all their migrations, they would have taken with them plants, seeds of the most useful vegetables, rats, and chickens. They colonized the island, and their first settlements were at Anakena on the north coast and at Akahanga on the south. They set about conserving rainwater, for Easter Island has no springs. At the same time they learned how to protect the crops against the continual winds. They were familiar with certain crafts which they hold in common with all Polynesians—the making of cloth from mulberry bark (tapa) and the working of wood and stone. The latter craft differs only from that found in the other Polynesian islands in respect of the size of the monuments. The abundance of easily carved stone was the sole predetermining cause of the Pascuans erecting on their island the largest statues found in the islands of Oceania.

The technical skill of the former inhabitants is seen also in the manufacture of implements and weapons of obsidian, and of fish-hooks of stone and bone. These last were made with human bone, for man was the only mammal available with bones large enough. The Pascuan writing on wood shows their skill and taste. There have been found a large number of rock paintings and engravings, the former magical, the latter merely trial pieces.

The Pascuan house, when it is above ground, shows many technical analogies with the Hawaiian house, which, like it, is roofed with tufts of grass set on a framework of boughs. Whenever possible, the Pascuans settled themselves in artificial caves or holes in the ground, which provided a less precarious shelter in war and against thieves. The fowl house was built on the same principles.

The Pascuans were tatooed, and on feast days they painted their bodies with appropriate emblems.

Ten family groups or clans divided up the island between them. The king belonged to the clan of Miru. His place of residence changed, and his role was indeterminate. Many taboos, notably in the matter of food, isolated him from Pascuan life. He did not engage in the wars which often broke out between the clans of the west and north and those of the east (Kotuu against Hotu Iti). He pro-

[9] Unfortunately, however, the mystery mongers are not as a rule open to reason. Mystery is their religion.—Translator.

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643 174 [212] sided over the experts in *rongorongo*, the repository of ancient traditions, genealogies, etc. They used tablets (Kohau *rongorongo*) engraved with signs as an aid to memory. The signs of *rongorongo* were the object of organized teaching.

174 764 769 [995] The Pascuans practiced a form of double inhumation. The body was exposed on the *ahu* until the flesh dried up or turned to dust. The bones were then placed in the burial chambers. Sometimes the skull was preserved separately. There was a general fear of the spirits of the dead. Commemorative feasts were held in front of the tombs, where chickens were exchanged for a ritual purpose. The statues at the foot of Rano Raraku represent the dead. Several of them have tatoo marks which were still used during the historical period. Later, the images of the dead also were placed on the *ahus*.

174 776 [171] The Pascuans had a large number of gods, the chief of whom was Makó Makó. The same name appeared in other Polynesian mythologies. It would seem to be connected with the source of that which supplied the material needs of the Pascuans—cultivation and fishing. It was thus connected with the Marquesan Tiki, whose mask it resembled in almost every detail. Makó Makó is the creator of birds. One of the less obscure features of his cult is the indication, by means of birds, of a man [10] who probably represents the god, and who each spring gives place to another. Ritual feasts at which human flesh was eaten were a part of this cult, as well as also initiation ceremonies at puberty. [266]

195 179 The end of the old culture was hastened by the arrival of Europeans, who revealed a new world to the Pascuans, a world totally different from their own. From that time onward they lost without any effort both peace and the joy of life. Their restless spirit drove them to undertake the most savage warfare, which decimated them, ruined their culture and overthrew its monuments. Works of art were given up, traditions were lost, so that even the memory of their existence has perished. The whalers and slavers completed the task of destruction already well advanced. After being Christianized the Pascuans became ashamed of most of their past history, and essayed, not without success, to remove all traces of it from memory.

[10] Tangata Manu—bird man. He was the first to get possession of the first egg laid by the bird *Manutara* (breast) in the island of Motunui (spring equinox).

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no 'moai' (as they are termed) in England?" To ask the natives for the history of the images is as unsuccessful as to expect an old woman in the street to account for the statues in Parliament Square. The story which is universally told to account for the cessation of the work is as follows: "The chief person among the image makers was the cook; she was an old woman of great authority, and moved the statues by supernatural power ('mana'). One day on returning to the mountain she found that during her absence the workers had had a great feast of lobster and that nothing had been left for her. So great was her wrath that she threw down the statues and brought the whole work to a conclusion."

There are a considerable number of folk tales, but they deal almost entirely with wars between the different clans on the island, in which cannibalism played a large part. They contain an occasional allusion to the terraces, but none to the statues. Nevertheless when it has been stated that the natives are ignorant of the subject of the images certain qualifications must be introduced. They never deviate from the statement that the figures were made by their ancestors. They point out the first statue, a block lying on the outside of the mountain in which the worker seems to have involved himself in a certain amount of confusion between ear and shoulder. This man went, they say, to the other side of the other island to get information from an old man who resided there as to how a statue ought to be made. The man would not answer his questions, and the worker was coming away disheartened when the old man called him back. "Make the statue like me," he said. It was to be in the form of a man. Tradition points to a boundary on the mountain Rano Raraku which can only be the tabu line that preserved the image workers from intrusion.

On one subject it was possible to obtain information—the epoch when the statues were overthrown. They were standing in the time of Roggeveen, and many at any rate were still in position in the days of Cook. The last one was overthrown by the fathers of the present old men who as boys assisted their fathers—that is, about 1835.

There is a curious little piece of information preserved about this last statue, which is one of the tallest, measuring about 32 feet. There is a hillock near the terrace on which it stood, and it is said that after the statue was in place a causeway was constructed from this hillock to the statue, by which means the crown was placed on the head of the image.

Turning from tradition we sought to discover if there was any analogy between the details of the statues and native custom. In addition to their general form the images have three special characteristics—their hats, their ears, and the design on their backs.

If the form of hat could be traced and the people could be found who wore such hats, we should be appreciably nearer the solution of our problem. A careful inquiry was therefore made into native headdresses, but its results were suggestive rather than conclusive. It can hardly have

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her to give an account rather than that I should do so. I could take up an indefinite time in a yarn of the voyage and the incidents that occurred; but I think it would be better if my wife now addressed you, because it is very difficult to compress the result of three years' work within the space of sixty minutes.

(*Mrs. Routledge then read the paper printed above, and a discussion followed.*)

Sir HERCULES READ: I feel that an honour has been rather thrust upon me, in asking me to speak first this evening, and in crediting me and my friend Mr. Joyce with a greater responsibility for this expedition than either of us would be prepared to claim. The problems which Mr. and Mrs. Routledge endeavoured to solve are many, and I do not know what their hope was of arriving at a solution. But it is perfectly clear that they have brought back, even in these fine pictures we have seen to-night, some of the best evidence that we can have to aid in the determination of the problems that are presented by Easter Island and its history. Manifestly there are two main problems: one is the extraordinary images—and I must confess that I had not realized until now how wonderful they were and how unique. The other is the problem of this extraordinary writing, of which you saw one or two examples on the screen. On the American Continent, although not in that particular vicinity, there was a very well-developed system of writing or ideographs, but I can see no resemblance at all between those ideographs and the glyphs of the Maya or of any of the races which have used writing on the continent. There is only one single instance which might lead one to think of the American Continent at all, and that is, as my friend and I both immediately noticed, those stones with apparently regular joints and building surfaces bedded one upon the other, which anybody would at once see bear great resemblance to a familiar feature of Peruvian architecture. I have noticed in all accounts of these written tablets from Easter Island, that the natives chanted the song, tradition, or whatever it was. Now the alternate lines are reversed, one reading from one side and the next from the other. Is it not possible that they were written in much the same way as the English song books of the seventeenth century, when part songs were so printed that the two parts could be read from two sides of a table? There is another problem: How old is this writing? We are familiar with the evolution of pictorial writing, which passes through the ideograph until it becomes a mere convention and all idea of a picture is lost. Just as the Chinese of to-day was originally picture writing and has now become somewhat remote from the resemblance to anything pictorial, this Easter Island writing has got some way from the pictograph. Now with regard to other writings of the sort. Babylonian was a kind of ideograph much as we see in Easter Island until it became regular cuneiform: a result that took something like two or three thousand years for a race of high intelligence. It may well be that these inscriptions and these images go back a very considerable way. One thing has struck me very much: the enormous number of the images. Either they have been made over a great length of time, or there was a very large population on the island. I do not know whether the latter is possible; but it is one thing or the other. It must have taken either an enormous amount of time or a very large number of people to have produced so vast a quantity of these huge stone images, which can only have been made very slowly indeed. The interest of the lecture has been manifold; but I think these are the two points which stand out from the rest of the story as asking for solution. At present, even with the evidence and photographs before us which Mr. and Mrs. Routledge have brought home, it is too

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●174 early to attempt anything like a complete solution, but I trust that the material which they have obtained will help to elucidate the real story of the Easter Islanders, their age, their relations, and the relations more particularly of their art and their written language.

Mr. T. A. JOYCE: I have little to add to what Sir Hercules Read has said, and I most heartily endorse all his remarks, especially in regard to the relation of the culture of Easter Island to that of the continent of America. It may be that the Polynesians reached the coast of South America; in fact, it is quite likely; but even if they did that fact would not help us with regard to the script, because no script at all has been found in South America. Even if they reached Central America we are brought up against another problem, constituted by the early manifestations of the great Maya culture, which do not appear on the West Coast, since that culture arose in the central valleys, whence it spread to either ocean. Of the Maya script the only portions at present which we can read in any way are the dates. The brilliant conjecture of Mr. Maudslay has been absolutely substantiated by later researches. Certain portions of these inscriptions are dates—dates which we cannot correlate with European time, but which form a connected sequence. By comparing these we are able to judge of the relative age of different monuments, and by this means it can be shown that the culture arose in the centre of the Central American Continent and spread east and west. If the Easter Island monuments are of a considerable age—and their number seems to point to that, because it appears to me absolutely impossible the island could have been thickly populated—then, having regard to our present idea of the antiquity of American culture as a whole and the time at which the earlier culture reached the western coast of America, it seems very unlikely that any early Polynesian voyagers, if they did touch the American coast, would have found any American culture there at all. I shall be most interested to look into the results which Mr. and Mrs. Routledge have brought, and I congratulate them most heartily. It has come to my lot to go into the literature of Easter Island; but I do not know that I ever realized the enormous amount of human labour that has been spent on that island. It is almost incredible when you think that all these enormous statues are cut with stone tools. There is just one other point which adds to the problems of the island. A few years ago, when Lord Crawford made his voyage, he brought back a lot of skulls which were deposited at the Natural History Museum, whither I went to measure them. I then wrote a paper which I never published; it remained both literally and metaphorically a skeleton in my anthropological cupboard, because I could not get away from the conclusion that in their measurements and general appearance these skulls were far more Melanesian than Polynesian. And I do not think I should have been bold enough to say this now if it had not been that quite recently Mr. Pycraft has been going over the material and studying the matter, and he, without knowing anything of my results, which I had carefully hidden, came to the same conclusion.

Mr. MAUDSLAY: I am shy of saying anything of the possible connection between Polynesian and American culture, because it is usually stated that American culture came from the north-east of Asia. However there is the possibility if not probability of some such connection, and I am delighted to hear Sir Hercules Read and Mr. Joyce refer to it. The one great difficulty in my mind about the connection with North-Eastern Asia is that no Asiatic grain, no Asiatic cultivated plant, was found in America; and that the Americans had had time to develop that wonderful maize plant which became, as you know,

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the staple food for America, and as soon as the Spaniards discovered America, became a staple food all over the world. If the connection occurred through Polynesia the difficulty would disappear, for Polynesians coming from tropical oceanic islands are not likely to have brought any grain such as rice, millet, or wheat with them. The development of the maize plant from an unknown stock must, I think, take American culture as far back as the very misty days of the development of the wheat plant in Asia. There is one other point. Not much has been said as to how the Easter Islanders got to the island. If you look at the map you will see that there is a chain of islands, very long distances apart, that lead more or less to Easter Island. The voyages were made in canoes, but the canoes were not perhaps quite like the canoes you may have in your minds; they were really vessels of considerable size. I often scrambled about Thakombou's huge double canoe in Fiji, when it was under repair beneath a great thatched shed. It was called the "Tavuki ni Vanua," that is "The Upsetter of the Land," the suggestion being that if it struck an island it was the island that would sink. One of the twin hulls, if my memory serves me, measured about 100 feet long, and the other measured over 70 feet. A very considerable amount of food could be stored in such a canoe, and they were more seaworthy than one would imagine. The last of the great Tongan canoes, the "Loma la Biau," that is "The Beater-down of the Waves," had disappeared before I reached Tonga in 1878, and the great Fijian canoe given by Thakombou to King George of Tonga had already been broken up. The lattice-like rafters of a room in my house were cut from the greenheart of which the hulls were made. The question of the peopling of the Pacific Islands is one of the greatest ethnological puzzles, and I most earnestly hope that this is not the last paper we shall have from Mr. and Mrs. Routledge on the subject. They have been to the furthest eastern corner of Polynesia, and I should like to induce them to go on another expedition and start at the north-west. We want to know more about the 'Caroline Island Venice,' where the canals are bordered by huge basaltic columns which have been brought from a considerable distance, and where there are great masses of basaltic rock piled up to form the tombs of the chiefs; and we want to know more about the other megalithic monuments which are known to exist on many of the islands. I hope that Mr. and Mrs. Routledge, encouraged by the success of their enterprise, will not give up the quest, and will be able to throw yet more light on the culture and migrations of the Pacific Islanders.

Mr. BASIL THOMSON: I am sure that Mr. and Mrs. Scoresby Routledge will forgive me for wishing that they had lived fifty years ago, when the ancient customs and traditions of the natives were still comparatively untouched. The great problems that have been raised in this very interesting paper are, as Sir Hercules Read has said, the megalithic monuments and glyphic writing; but I was much struck with the remarks of Mr. Joyce, who noticed Melanesian characteristics about the skulls brought back from the island. I have long had doubts as to whether the people were pure Polynesians. There has certainly been a Melanesian admixture in some of the other Polynesian islands. I noticed this at Niué (Savage Island), where in the village of Avatele at the south end of the island the natives have many of the Melanesian traits, and this is supported by their traditions. I found two Niuéans from the New Zealand contingent at a hospital in Eaton Square the other day, and while one was certainly Polynesian in type, the other was as certainly Melanesian. Among the traditions that have come down to us from Easter Island—I do not know how far it is authentic—is the story that when the first ancestors of the

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174 present race reached the island they found another race in possession, whom they called "Long Ears." Of course it is quite possible that this occurred in some other island at which they touched, and not at Easter Island at all. At any rate there were sanguinary conflicts between the two, and the Polynesians made use of a stratagem and prevailed. Writing of the "Long Ears" Roggeveen says, "When these people go about any job that might set their ear-plugs waggling and bid fair to do them any hurt, they take them out and hitch the rim over the top of the ear, which gives them a quaint and laughable appearance." Obviously the ear of the statues was the ear that the people of Roggeveen's time were wearing. It does not follow that they did not adopt the idea of enlarging the ear from people they found there, or met before their arrival. It was a suggestively Melanesian custom. As to the date of the first immigration, the natives used to give the names of fifty-seven paramount chiefs. Allowing fifteen years as the average reign in an island where tribal wars were frequent it takes us to about 1000 A.D. for the arrival of Hotumatua, the first recorded chief. Something was said about the population. The early voyagers estimated it at 2000 and at 3000. It was a rough guess, because they did not go all over the island, but, in view of the small supply of water and the poor quality of the soil, probably it was fairly correct. Clearly the object of the statue-making, and of what are known as the domestic idols, was religious, and here I venture to make a tentative suggestion. I do not know whether you have read one of the classics of South Sea travel—I mean Melville's 'Typee'; if not you ought to lose no time in doing so. Although Melville was a vagabond and a waster, subsequent discoveries have proved that he was a remarkably truthful observer. He relates how, when roaming about the forest of the Typee valley in the Marquesas, with Korikori his native body-servant, he came upon a huge wooden statue with staring eyes, much decayed by the weather, and standing on a stone platform after the fashion of Easter Island. He relates also how the Typee priests kept little wooden images as oracles, and when they were consulted by the warriors they took one out, whispered their question into the idol's ear, and then held the idol's mouth to their own ears as if listening to the reply, much as little girls make use of their dolls when they wish to confound their nurses with an oracle. Here we have all the religious apparatus of Easter Island, only 900 miles distant, and I suggest that it was quite natural for a people who had been in the habit of fashioning wooden statues, when they arrived at an island destitute of timber, and an island, moreover, where there were obsidian tools instead of stone tools, they should fall back upon stone as the material with which to carry on their religious practices. When Gonzales visited Easter Island in 1770 he saw a large "Judas," 11 feet high, made of wickerwork, stuffed with hay and covered with native bark, being carried on a kind of litter. I suggest that this figure was the representation of the dead chief, made to preside at the funeral feast while the permanent statue was being cut in the quarry. It is quite consistent with Polynesian practice that the quarrymen should be a hereditary clan, protected by the *tabu*, just as the *Ta-maka* stone-mason clan was treated in Tonga. It is also consistent that in times of civil war each side should desecrate the tombs of the other by throwing down its images. There will be much more to say when Mrs. Routledge's book comes out, for I feel that she must be keeping a great deal in reserve; but even in this paper she has added much to our knowledge of this extraordinary island. In conclusion I should like to ask her one question. The Americans found in 1886 a statue terrace on the face of a cliff nearly 100 feet high, to which there was no approach at all.

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If there had ever been one the sea must have washed it away. Has she any theory about this terrace? I should like also to add that Bishop Jensen's collection of inscribed tablets, which appears most unfortunately to have been dispersed after his death in Tahiti, was examined by M. de Harlez of Louvain, and that he came to the conclusion that there was no sense or significance in the writing. He records, however, the interesting fact that some of the characters were inscribed on a piece of a European oar, which shows that the art was preserved until within the last few decades. 174

Mr. HENRY BALFOUR: I am very glad of this opportunity of offering my congratulations to Mr. and Mrs. Routledge on the extremely successful issue of an expedition which involved both difficulties and dangers, and which bids fair to add very considerably to our knowledge of Pacific ethnology. I was much interested in the remark which Mr. Joyce let fall. He suggested probable Melanesian affinities in the earlier Easter Islanders, judged from their skull measurements. The same kind of idea, though based upon cultural remains, has occurred to me. I cannot help feeling that if we are to seek for affinities in the culture of the Easter Islanders, we must look to the West rather than to the New World. I gather that New-World influence is practically ruled out. The only evidence in its favour is found in the mode of construction of the terraces. But I think we may find elsewhere a number of suggestive analogies; at any rate, as we have to cast our net very far and wide, we must take all kinds of possibilities into consideration. The chief things, I think, to be noted in the material culture of the Easter Islanders are the gigantic statues, the wooden carvings, rock engravings, the obsidian implements, and the script; all these things are characteristic of Easter Islanders—so characteristic, in fact, that it is impossible to mistake them for the products of any other people. They are absolutely peculiar, and yet at the same time, in looking for traces of analogy or similarities, one can find hints in other parts. The script, it is true, is a complete puzzle, since among the islands of the Pacific no script seems to occur until we come to the western Caroline Islands. The obsidian implements find a parallel in British New Guinea, and also resemble very closely certain chert implements from Chatham Island. When we turn to the carvings, I think there are some interesting points which it may be worth while to follow up, and they lead us directly into the consideration of the possibility of Melanesian influence in the culture of Easter Island. That peculiar mythical figure, half man, half bird, is, as far as I know, only to be found elsewhere within the Melanesian area in the Solomon Islands, where such figures are of very common occurrence, and where may be seen bird-headed human figures, human-headed bird figures, birds with human hands and arms, and other bird-human compromises. These things have not been worked out at all thoroughly. We do not know the true significance of them; but at least we can see that there is a very close parallelism between them and the Easter Islanders' similar productions. I throw this out merely as a hint: that we should look to Melanesia for possible help in the explanation of the curious bird-cult which is observable in Easter Island. I think one might go further than that. Still keeping in mind the Solomon Islands, one can draw attention to the fact that the facial type, together with the long ears which appear on those huge monolithic statues in Easter Island, is, as far as my own experience goes, only to be paralleled by wooden carvings of the human form which occur in several of the islands of the Solomon group, and which have similar features very strongly marked; the long and concave form of the nose, the prognathic shape of the lower part of the

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face, the long ears, and the red cap on the top of the head. Just one other point. Apparently *both* in Easter Island and in the Solomon group these very similar renderings of the human form, which have so many points in common, appear to be associated with a *bird cult*. I shall not detain you longer, although a discourse such as we have enjoyed this evening suggests a great many things to one's mind. I should like to add my cordial thanks to Mr. and Mrs. Routledge for the increase in our knowledge of these eastern outposts of the islands of the South Pacific, and I thank them very heartily indeed for having brought back fresh material which I hope will shed new light upon the ethnological problems of that ocean.

Dr. J. W. EVANS: I would like to ask only one question. Could Mrs. Routledge tell us what are the affinities of the language of the people of Easter Island?

Dr. H. O. FORBES: The previous speakers, especially Mr. Balfour, have dealt with some of the points I had intended to refer to; but I should like to express my opinion that the stone monoliths and the wooden figures can hardly be of the same age or the work of the same people. I wish to put on the screen a photograph of two wooden figures now in the British Museum, taken from pre-Inca graves, which I recently brought from Peru. They recall in the shape of the ears and nose the wooden figure exhibited to-night from Easter Island, suggesting perhaps a connection between the art of the two regions. Then as to the script, I place on the screen a second slide, that of a petroglyph in a cave in the Chatham Islands some 500 miles east of New Zealand—where also similar hieroglyphs occur—in which there are similitudes if not characters identical with those of the Easter Island tablets. In the years previous to his death I had many interesting talks with my old friend Fleet-Surgeon Palmer, who was an officer of H.M.S. *Topaze*, which brought over the two monolithic figures now at the British Museum, and he agreed that there was a curious suggestion of the one in the other.

One of the greatest losses to Easter Island ethnography, which can never be repaired, was the disposal by auction of Fleet-Surgeon Palmer's unique collection made on his different visits to the island close on fifty years ago. He possessed, I recollect, a larger number of inscribed tablets than any collection I know of. This collection was offered by his family to me as Director of Museums for Liverpool, but my trustees declined the purchase of "objects from such a remote and uninteresting place." It was probably declined elsewhere, since it was dispersed by auction. Two valuable papers by Palmer are to be found, one in the *Journal of the Ethnological Society* for 1869, and another in that of this Society for 1870. To neither of them has any reference been made to-night, though they are of special interest from the date of the visits they describe. There was a greater number of the images standing then than now. Palmer collected also several especially interesting traditions, among them one of the island being populated by a boat's crew driven on it by chance; and another about the egg-collecting ceremony. The account of the latter given to-night appears, however, to be a much more elaborated story than the one current fifty years ago on the island, and careful inquiry appears to be called for whether the tradition has not received accretions in the interval. The ceremony appears to me to have arisen in any case from the eagerly awaited return of the nesting season of the birds during years of famine and great scarcity. Palmer mentions the presence in these glyphs of animals, such as the turtle, not belonging to the island fauna, and it was interesting to note that the script specially written by the old and dying leper for the

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lecturer contains also a turtle or tortoise, indicating that the script was to some extent correctly remembered, if not entirely understood. Palmer also states that the priests wore wooden balls, specimens of which he obtained, hanging from their ears. The origin of the astonishing culture seen on Easter Island is, of course, the most interesting question awaiting elucidation. The latest theory is that of Prof. Elliot Smith, who holds that it is part of what he designates the heliolithic custom, which spread from Egypt after the year 900 B.C. all over the world, and is to be recognized everywhere by its exponents building megalithic mausolea, holding peculiar beliefs regarding stone images and mummification, worshipping the sun, and having their wives' chins tattooed. It is certainly difficult to recognize the hall-marks of this civilization on Easter Island. Palmer tells us that the men and women tinted their bodies, and had some dots over the eyes; but the lecturer did not mention chin tattooing on the island. The culture of Easter Island, as known to-day, seems to extend a hand both to East and West. To all who have seen or studied Peruvian masonry the piece of wall shown on the screen recalls at once, as remarked by a previous speaker, that of the pre-Inca stonework—a resemblance which I cannot believe to be fortuitous. Then the stone image found many years ago below some 60 feet of guano on one of the Peruvian Islands strongly resembles the smaller Easter Island figure at the British Museum, while the swimming-pillows of the natives would seem to be an echo of the caballitos of the fishermen of northern Peru. On the other hand, the stone fish-hooks obtained by Palmer, the use of the ground cooking-ovens, the clubs of wood like the *meré*, and the double-headed paddle suggest a connection with New Zealand. After all one cannot help the conviction that the present people are not the original inhabitants of the island, though they may have some of their blood, and that they are not the sculptors of these huge images which form the mystery of that lone ocean volcano.

Sir HENRY HOWORTH: I should like to suggest one other solution of this problem. The island of Sumatra where the Malays occupy the coasts, and where the Malay community and the Malay race were probably originally created by an admixture of Polynesian blood with that of the natives of the interior, is a place to which reference has not yet been made in this discussion. It is the only place I know where inscriptions in the least like those found on Easter Island are to be found among the wild races, such as the Battas. It seems to me that the Malays may perhaps have had something to do with the primitive people of Easter Island. Before they were knocked to pieces by the Arabs they sailed over all the seas which were accessible to their ships, and they must have gone a very long way, because they probably carried the Polynesian race to Madagascar. The French have recently found a great deal which is most interesting with regard to Polynesian element in both the language and the customs of the Hova race, the aristocracy of Madagascar, who conquered and absorbed an earlier race of African blood. They have shown that the invading and conquering race was imported into Madagascar before the Hindoo elements were imported into the Malay language. That takes you back a very long way, for these elements were imported at the time that Java received its Hindu religion, and the Malays of Java became Brahmins. I have little doubt that the Malays in the day of their glory visited Japan as they did the various islands of the Eastern Archipelago as far even as New Zealand, while some straggling ships that had lost their way might have gone anywhere that the wind would take them. With regard to the Easter Island images, you have in Sumatra a series of images which have a generic resemblance, very much more close

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than any other I know, to these figures, closer than any of the great stone images you get in the Caroline Islands and those of the central groups. It seems to me that at the time when the Malays were in their glory it must have been a stray ship that found its way there and took some of their ideas, including the art of cutting which they possessed at home, just as it was a stray ship that took the *Bounty* seamen to Pitcairn Island. There is great difficulty, of course, in all concerted movements in the Pacific; it could only be done with big ships and by sails. In the old days of which we have extraordinary accounts in the Indian poets, before the Arabs, and when the Malays commanded the Eastern seas with their great craft, you have, it seems to me, a possible solution of our stupendous difficulty; Sumatra, at all events, is the only place I know of where you have inscriptions written in characters which have a generic resemblance and fraternity with those that occur on these tablets and with these great statues. I quite agree with my friends on the right that neither of these features has anything whatever to do with the inscriptions and big stones in these islands. Nor do I think that the ancestors of the present indigenes had anything to do with the monuments. The Polynesians are very barren in artistic capacity; they are far below the Melanesians. Nor do the wooden figures with their curled beards and strange aspect suggest Polynesian source. Still less do the so-called gorgets which are inscribed with the same characters as the tablets, and have similar heads at the ends of the lunar points. They have a look very foreign to the Pacific. One word more. Like every other speaker I must emphasize the obligations these two delightful travellers have put us under, not only in Easter Island and Pitcairn Island, but in their fascinating book on Africa. I could say more about them if it were not so late.

Mrs. SCORESBY ROUTLEDGE: It seems certain, as has been said, that we must look to the West and not to the East for the original home of the Easter Islanders. The chances against any particular boat reaching so small and remote a spot must have been very great; the fact remains, however, that it has been achieved. A partial explanation, which has been suggested, is that a canoe or canoes were going from one island to another and were blown out of their course; this would account for the fact that there must have been sufficient provisions on board to sustain life for so long a voyage. According to native legend the place of destination was revealed to their ancestors in a dream. There is no doubt that the islanders are not of pure origin. They vary much in colour, from a sallow white to a fairly deep brown. They are quite conscious themselves of this variation, and in giving their genealogies were always prepared to state which of their relations were light and which were dark. The chief, Cnaara, to whom reference was made, was described as "quite white." The skulls brought back by the expedition, which have been kindly examined by Dr. Keith, bear out the same conclusion of a mixed race. Such mixture may, however, very possibly have taken place prior to the arrival on the island. The legend of a conflict between a people with "Long Ears" and a people with "Short Ears" is well established, but its origin is not easy to trace. The natives say that they are descended from the victorious "Short Ears," although we know, as has been said, both from themselves and from the early voyagers, that their ancestors were in the habit of enlarging the lobe in the same manner as is shown in the statues. No real account is forthcoming as to who were the people with "Long Ears." There is a possible explanation for the story, but I hesitate to put it forward here.

The language is apparently Polynesian. There is no written grammar and

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already arisen to account for the fall of some of them. An old man arrived, it is said, in the neighbourhood of Tongariki, and as he was unable to speak, he made known by means of signs that he wished for chicken-heads to eat; these were not forthcoming. He slept, however, in one of the houses there, and during the night his hosts were aroused by a great noise, which he gave it to be understood was made by his feet tapping against the stone foundations of the house. In the morning it was found that the statues on the great ahu had all fallen: it was the revenge of the old man. Such lore is, however, mixed up with more tangible statements to the effect that the figures were overthrown in tribal warfare by means of a rope, or by taking away the small stones from underneath the bed-plates, and thus causing them to fall forward. That the latter method had been used had been concluded independently by studying the remains themselves. It will be seen later, that other statues which have been set up in earth were deliberately dug out, and it seems unnecessary to look, as some have done, to an earthquake to account for their collapse.

Moreover, the conclusion that the images owed their fall to deliberate vandalism during internecine warfare is confirmed by knowledge, which still survives, connected with the destruction of the last one. This image stood alone on an ahu on the north coast, called Paro, and is the tallest known to have been put up on a terrace, being 32 feet in height. The events occurred just before living memory, and, like most stories in Easter Island, it is connected with cannibalism. A woman of the western clans was eaten by men of the eastern; her son managed to trap thirty of the enemy in a cave and consumed them in revenge; and during the ensuing struggle this image was thrown down (fig. 78). The oldest man living when we were on the island said that he was an infant at the time; and another, a few years younger, stated that his father as a boy helped his grandfather in the fight. It is not, after all, only in Easter Island that pleasure has been taken during war-time in destroying the architectural treasures of the enemy.

While, therefore, the date of the erection of the earliest image ahu is lost in the mists of antiquity, nor are we yet in a position to say when the building stopped, we can give approximately the time of the overthrow of the images. We know,

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174 from the accounts of the early voyagers, that the statues, or the greater number of them, were still in place in the eighteenth century; by the early part of the middle of the nineteenth century not one was standing.

The destruction of the ahu has continued in more modern days. A manager, whose sheep had found the fresh-water springs below high water, thinking they were injuring themselves by drinking from the sea, erected a wall round a large part of the coast to keep them from it. For this wall the ahu came in of course most conveniently; it was run through a great number and their material used for its construction. One wing of Tongariki has been pulled down to form an enclosure for the livestock. In addition to the damage wrought by man, the ocean is ever encroaching: in some cases part of an ahu has already fallen into the sea, and more is preparing to follow; statues may be found lying on their backs in process of descending into the waves (fig. 43). One row of images, on the extreme western edge of the crater of Rano Kao, which were visible, although inaccessible, at the time of the visit of the U.S.A. ship *Mohican* in 1886, are now lying on the shore a thousand feet below. As the result of these various causes the burial-places of Easter Island are, as has been seen, all in ruins, and many are scarcely recognisable; only their huge stones and prostrate figures show what they must once have been.

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between the mountain in the apex and the cliff, and mixed up with them was a lesser people, the Hamea. To the east was another small clan, the Raa, which is spoken of in conjunction with the Miru and Hamea.

The principal Hotu Iti clans were the Tupahotu, the Koró-orongo, and the Hitiuira. The last were generally known as the "Ureohei"; they inhabited jointly the level piece of ground from the northern bay to the south coast, and had some dwellings on the eastern headland. Next to them on the south coast was a small group, the Ngaure.[1] The particular importance of the clans lies in the fact that, while they may be merely groups of one body, they may, on the other hand, represent different races or waves of immigrants. If there have been two peoples on Easter Island, these divisions are one place where we must at least look for traces for it.

Legend tells of continual wars between Hotu Iti and Kotuu. In recent times general fighting seems to have been constant, and took place even between members of one clan. A wooden sword, or paoa, was used, but the chief weapon was made from obsidian, and took from it the name of "mataa." This volcanic glass is found on the slope of Rano Kao, but the principal quarries are on the neighbouring hill of Orito. Tradition says its use was first discovered by a boy who stepped on it and cut his foot. The obsidian was knapped till it had a cutting edge, and also a tongue, which latter was fitted into a handle or stick (fig. 92). The various shapes assumed were dignified by names, fourteen of which were given, such as "tail of a fish," "backbone of a rat," "leaf of a banana." It was very usual to pick up these mataa, and hoards were occasionally found; in one instance fifty or sixty were discovered below a stone in a cave, and in another case the hammer-stone was found with them which had been used in the process of squeezing off the flakes. The weapon was

[1] Of these clan names, "Raa" means the sun and "Marama" the light. The signification of the others is not equally clear, and the natives could give no assistance; but Mr. Ray gives the following interesting information from other Polynesian sources. "Haumoana" means the sea-breeze; "Hitiuira" is probably "hiti-ra" or sunrise; and "Ure-o-hei" another version of "ura-o-hehe," or red of sundown. "Koro-orongo" is doubtless from "Koro-o-Rongo," or the ring of Rongo (a well-known Polynesian deity), that is the rainbow. "Kotuu" appears to be a contraction of "Ko Otuu," meaning "The Hill"; the name "Otuu" is used alternatively for the same district. "Hotu" is another form of the word for hill and "Iti" signifies small, it presumably refers to Rano Raraku.